

Example #1: If a force of 250 N acts on a 50 kg mass for 10.0 seconds, what is the increase in velocity?

$$\Delta p = Ft = 250(10.0) \\ = 2500 \text{ N}\cdot\text{s}$$

$$\Delta p = m\Delta v$$

$$2500 = 50 \Delta v$$

$$\boxed{\Delta v = 50. \text{ m/s}}$$